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ARRAY - PROBLEM SOLVING

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**1.Extract all the Odd numbers from the array**

let arr = [12,13,15,16,17,18];

let newArr = arr.filter((items)=>{

return items % 2 !== 0;

})

console.log(newArr)

**2.Extract all the Even numbers from the array**

let arr = [12,13,15,16,17,18];

let newArr = arr.filter((items)=>{

return items % 2 === 0;

})

console.log(newArr)

**3.Check if input is Prime Number or not**

function checkPrime(val) {

if (val <= 1) {

return false;

} else {

for (let i = 2; i < val; i++) {

if (val % i === 0) {

return false;

}

}

return true;

}

}

console.log(checkPrime(13)); //true

**4.Remove Duplicates**

**A> New Set**

let arr = [10,10,20,20,30,40,40,50];

let newArr = [...new Set(arr)];

console.log(newArr)

console.log(newArr)

**C> Manual**

let arr = [10,10,20,20,30,40,40,50];

let newArr = [];

for(let i of arr){

if(newArr.indexOf(i) == -1){

newArr.push(i)

}

}

console.log(newArr)

**5.Remove Duplicates from JSON Array based on a key**

let arr = [{name:'Rakesh',val:20},{name:'Rakesh',val:30},{name:'Rocky',val:10},{name:'Nibbi',val:"50"}]

let r = []; let f = [];

for(let i of arr){

if(r.indexOf(i['name']) == -1){

r.push(i['name'])

f.push(i)

}

}

console.log(JSON.stringify(f))

**Remove Array duplicates using ES6 Map and Set**

let arr1 = [10,10,20,20,30,40,40,40,50,50]

let arr2 = ['Rakesh','Rakesh','Swain','Swain']

let arr3 = [{name:"Rakesh"},{name:"Rakesh"},{name:"Rakesh"}]

let result = [...new Set(arr3.map(ob=>JSON.stringify(ob)))].map(ob => JSON.parse(ob))

console.log(JSON.stringify(result))

**6.Shalow Copy of an array:**

var arr = [1,2,3,4,5]

var arr2 = [...arr];

console.log(arr2)

**7.Deep Copy of an array**

var arr = [1,2,3,4,5]

var arr2 = JSON.parse(JSON.stringify(arr));

console.log(arr2)

**7. String Array Logic**

//count each word concurrency

function wordcount(str){

const ob = {};

const arr = str.split(/[ .]/);

for(let i of arr) {

if(ob[i]) {

ob[i]++;

} else {

ob[i] = 1;

}

}

return ob;

}

let finalOb = wordcount("Hello I am Rakesh Swain. I am Rocky. Hi Rocky");

**//Get all the Count values of a string with count value in a json format**

console.log(JSON.stringify(finalOb));

**//find councurancy of any perticular word**

console.log(finalOb['Rocky'])

**//find the key which has maximum value**

let maxValueKey = Object.keys(finalOb).reduce((a, b) => finalOb[a] > finalOb[b] ? a : b);

console.log(maxValueKey)

**8.Find the Occurance count of an item in an array**

var = ["Rakesh","Swain","Swain"];

var count = arr.filter((item)=>{return item == "Rakesh"}).length

console.log(count)

**9.Find the Occurance count of all item in an array**

var str = ["Rakesh","Swain","Swain"];

var ob = {}

for(let i of str){

let key\_count = str.filter((item)=>{return item == i}).length

**//if need all counts or any specific word count**

ob[i]=key\_count

//if want the maximum counted word

if(key\_count > maxKey){maxKey = key\_count; maxkeyname = i}

}

console.log(JSON.stringify(ob))

console.log(maxKey + ":"+ maxkeyname)

**9.Find the lowest and highest element of an array**

function findMinMax() {

let Arr = [50, 60, 20, 10, 40];

let minValue = Math.min(...Arr);

let maxValue = Math.max(...Arr);

console.log("Minimum element is:" + minValue);

console.log("Maximum Element is:" + maxValue);

}